

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P579863

Luminaire Tested: **HC415D010-HM40525830-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579863
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC415D010-HM40525830-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1455.2 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

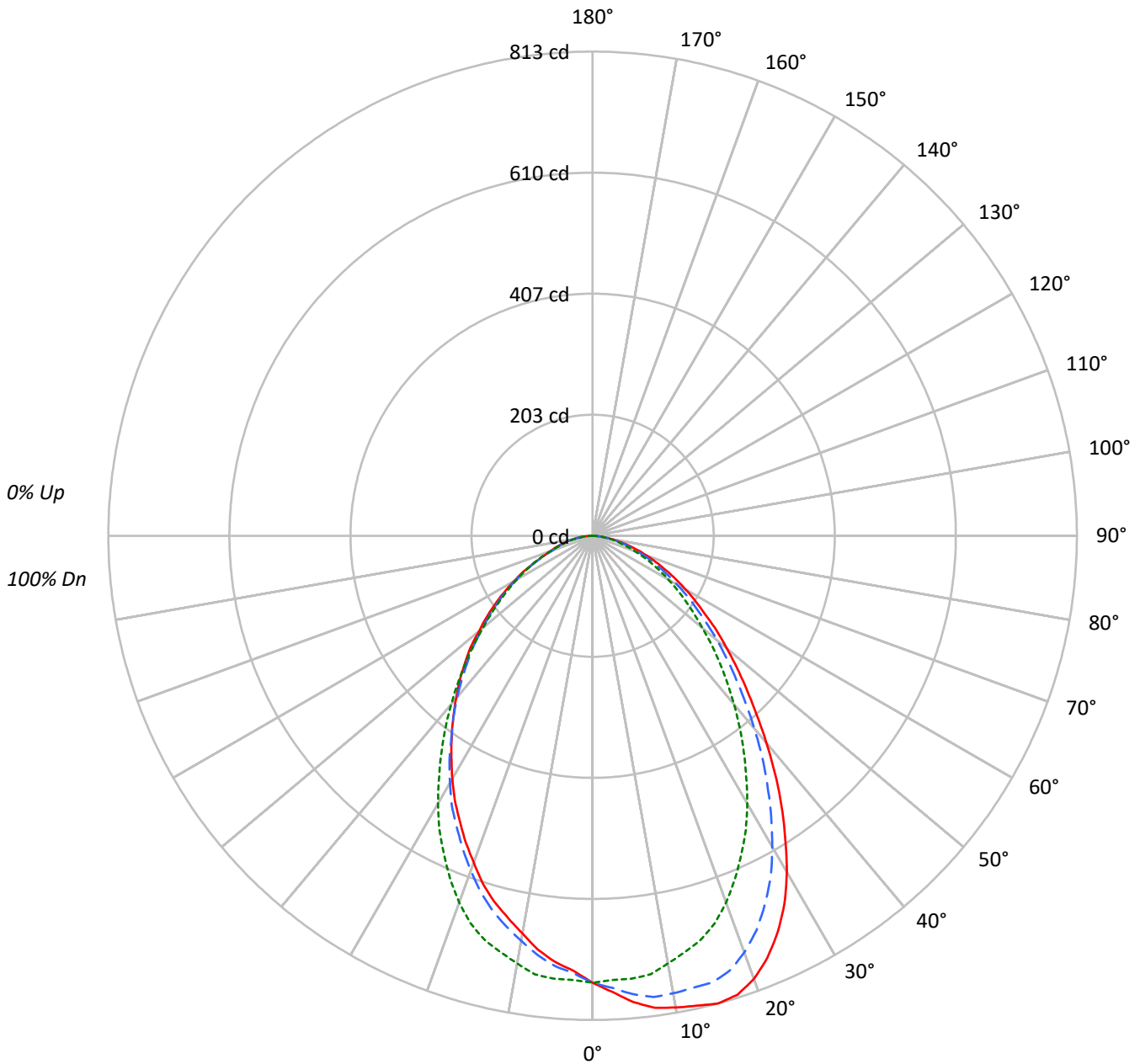
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P579863

CATALOG NUMBER: HC415D010-HM40525830-41WWWB

Luminous Intensity Polar Plot





TEST NUMBER: P579863

CATALOG NUMBER: HC415D010-HM40525830-41WWWB

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58								
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51								
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46								
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	92559	92559	92559
5°	97320	92442	88975
10°	100737	91331	84931
15°	103817	89669	81305
20°	103933	85976	76617
25°	100031	80352	71846
30°	92891	73948	67097
35°	83254	66585	62083
40°	73053	59415	57386
45°	63844	52593	52942
50°	56378	46035	47685
55°	49719	40816	42880
60°	44429	36116	37546
65°	39343	31754	31754
70°	34405	27120	27120
75°	29357	22971	25687
80°	23227	20528	23227
85°	15001	17690	21936



TEST NUMBER: P579863

CATALOG NUMBER: HC415D010-HM40525830-41WWWB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.1	4.9
10°-20°	200.2	13.8
20°-30°	280.5	19.3
30°-40°	289.0	19.9
40°-50°	246.0	16.9
50°-60°	182.3	12.5
60°-70°	114.4	7.9
70°-80°	56.8	3.9
80°-90°	14.9	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	551.8	37.9
0°-40°	840.8	57.8
0°-60°	1269.1	87.2
0°-90°	1455.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1455.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	750	750	750	750	750	
5°	786	773	747	725	719	76
15°	813	776	702	651	637	229
25°	735	684	590	539	528	336
35°	553	512	442	413	412	345
45°	366	341	302	296	304	284
55°	231	213	190	194	199	209
65°	135	121	109	107	109	134
75°	62	55	48	52	54	66
85°	11	11	12	14	16	14
90°	0	0	0	0	0	



TEST NUMBER: P579863

CATALOG NUMBER: HC415D010-HM40525830-41WWWB

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	750.4	750.4	750.4	750.4	750.4	750.4	750.4	750.4	750.4
2.5°	766.8	763.8	760.0	753.3	746.6	740.8	735.0	732.1	731.1
5°	786.0	780.2	772.6	760.0	746.6	735.0	725.3	720.5	718.6
7.5°	799.5	793.7	781.2	761.9	742.7	725.3	709.9	703.2	701.3
10°	804.3	797.6	780.2	754.3	729.2	708.0	690.6	682.0	678.1
12.5°	808.2	799.5	777.4	746.6	715.7	689.7	671.4	659.8	657.0
15°	813.0	803.4	776.3	738.8	702.2	671.4	651.2	640.6	636.7
17.5°	808.2	797.6	765.8	723.4	682.0	648.3	626.1	616.5	612.6
20°	791.8	780.2	744.6	699.4	655.0	620.3	598.2	588.5	583.7
22.5°	766.8	754.3	717.7	669.5	624.2	590.4	569.3	559.6	556.8
25°	735.0	722.4	683.9	634.8	590.4	557.7	539.4	530.8	527.9
27.5°	697.4	684.9	647.3	599.2	556.8	526.0	511.5	502.8	500.8
30°	652.2	639.6	603.0	558.7	519.2	490.3	478.8	472.0	471.1
32.5°	602.0	591.5	557.7	517.2	479.7	455.6	447.0	442.2	441.2
35°	552.9	541.3	511.5	474.9	442.2	420.9	413.2	412.3	412.3
37.5°	502.8	491.3	467.2	433.4	405.6	386.2	383.4	384.3	384.3
40°	453.7	443.1	421.9	394.0	369.0	354.5	353.5	355.4	356.4
42.5°	407.5	398.7	379.5	355.4	334.3	322.7	323.7	327.5	330.4
45°	366.0	358.4	341.0	319.8	301.5	292.8	295.7	300.5	303.5
47.5°	328.5	321.8	305.4	286.1	270.7	264.9	268.8	274.6	278.3
50°	293.8	288.0	272.7	252.4	239.9	236.0	240.8	246.6	248.5
52.5°	263.0	257.2	240.8	223.5	213.9	211.9	216.7	221.6	224.4
55°	231.2	226.4	212.8	197.5	189.8	188.9	193.6	197.5	199.4
57.5°	205.2	200.3	187.8	174.3	167.6	166.7	171.5	174.3	175.3
60°	180.1	175.3	163.7	151.2	146.4	146.4	149.3	151.2	152.2
62.5°	157.0	152.2	141.6	131.0	127.1	127.1	127.1	128.1	131.0
65°	134.8	131.0	121.3	111.8	108.8	106.9	106.9	106.9	108.8
67.5°	114.6	110.7	103.1	94.4	91.5	88.6	87.7	89.6	89.6
70°	95.4	92.4	84.8	78.0	75.2	72.2	71.3	75.2	75.2
72.5°	78.0	75.2	70.3	63.6	60.7	59.7	61.6	63.6	64.6
75°	61.6	58.8	54.9	51.1	48.2	49.1	52.0	53.0	53.9
77.5°	46.3	45.3	41.4	38.5	38.5	39.5	41.4	43.3	44.3
80°	32.7	31.8	29.9	28.0	28.9	30.8	31.8	33.8	32.7
82.5°	20.2	20.2	19.2	19.2	20.2	22.2	23.1	24.1	25.0
85°	10.6	10.6	10.6	11.6	12.5	13.5	14.4	15.5	15.5
87.5°	2.8	3.9	3.9	4.8	5.8	5.8	6.7	6.7	6.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)